



**NEW MEXICO
ENVIRONMENT DEPARTMENT**



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RYAN FLYNN
Cabinet Secretary
BUTCH TONGATE
Deputy Secretary

Certified Mail - Return Receipt Requested

June 10, 2014

Mr. Billy Ray, Site Manager
Rio Algom Mining, LLC/Ambrosia Lake Mine
P.O. Box 218
Grants, NM 87020

Re: Rio Algom Mining LLC/Ambrosia Lake Mine; Major; Individual Permit; SIC 1094; NPDES Compliance Evaluation Inspection; NM0020532; June 4, 2014

Dear Mr. Ray:

Enclosed please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

Introduction, treatment scheme, and problems noted during this inspection are discussed in the "Further Explanations" section of the inspection report.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

Gladys Gooden-Jackson
US Environmental Protection Agency, Region VI
Enforcement Branch (6EN-WM)
1445 Ross Avenue
Dallas, Texas 75202-2733

Bruce Yurdin
New Mexico Environment Department
Surface Water Quality Bureau
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

If you have any questions about this inspection report, please contact Sarah Holcomb at 505-827-2798 or at sarah.holcomb@state.nm.us.

Sincerely,

/s/ Bruce J. Yurdin

Bruce J. Yurdin
Program Manager
Point Source Regulation Section
Surface Water Quality Bureau

cc: Rashida Bowlin, USEPA (6EN-AS) by e-mail
Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
Gladys Gooden-Jackson, USEPA (6EN-WM) by e-mail
Brent Larsen, USEPA (6WQ-PP) by e-mail
Raquel Douglas, USEPA (6EN-AS) by e-mail
NMED District 1, William Chavez by e-mail



Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

NPDES Compliance Inspection Report

Section A: National Data System Coding

Transaction Code	NPDES	yr/mo/day	Inspection Type	Inspector	Fac Type
1 N 2 5 3 N M 0 0 2 0 5 3 2 11 12 1 4 0 6 0 4 17 18 C 19 S 20 2					
Remarks					
U R A N I U M M I N E					
Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved	
67 69	70 3	71 N	72 N 73	74 75	80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number) Rio Algom Mining LLC/Ambrosia Lake Mine, McKinley County, NM: From Albuquerque, take I-40 to Grants. In Grants, head West on NM-122, then North on NM-605. Head Northwest on NM-509. Mine entrance is on the left.	Entry Time /Date 0945 hours / 6-4-2014	Permit Effective Date 5-1-2011
	Exit Time/Date 1305 hours / 6-4-2014	Permit Expiration Date 4-30-2016
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Mr. Doug Murray, Deputy Site Manager, BHP Billiton (505) 287-8851 x 11	Other Facility Data	
Name, Address of Responsible Official/Title/Phone and Fax Number Mr. Billy Ray, Site Manager, BHP Billiton (505) 287-8851 PO Box 218, Grants, NM 87020	Contacted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	GPS: 35° 22' 36.71" N -107° 48' 26.63" W

Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

U	Permit	U	Flow Measurement	S	Operations & Maintenance	N	CSO/SSO
U	Records/Reports	S	Self-Monitoring Program	N	Sludge Handling/Disposal	N	Pollution Prevention
S	Facility Site Review	N	Compliance Schedules	N	Pretreatment	N	Multimedia
S	Effluent/Receiving Waters	N	Laboratory	N	Storm Water	N	Other:

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

- The inspectors arrived on site at approximately 0945 hours and conducted an entrance interview with Mr. Doug Murray, Deputy Site Manager, where they made introductions, presented credentials and discussed the purpose of the inspection. An exit interview was conducted at the site with Mr. Murray and Mr. Howard Slim, Senior Environmental Technician at approximately 1300 hours, where the preliminary findings of the inspection were discussed.
- Please see report for further information.

Name(s) and Signature(s) of Inspector(s) Sarah Holcomb /s/ Sarah Holcomb	Agency/Office/Telephone/Fax 505-827-2798	Date 6-10-2014
Signature of Management QA Reviewer Bruce Yurdin /s/ Bruce J. Yurdin	Agency/Office/Phone and Fax Numbers 505-827-2795	Date 6-10-2014

RIO ALGOM MINING LLC/AMBROSIA LAKE MINE		PERMIT NO. NM0020532
SECTION A - PERMIT VERIFICATION		
PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS DETAILS: <input type="checkbox"/> S <input type="checkbox"/> M <input checked="" type="checkbox"/> U <input type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED <u>YES</u>)		
1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES		<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT		<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA
4. ALL DISCHARGES ARE PERMITTED		<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA
SECTION B - RECORDKEEPING AND REPORTING EVALUATION		
RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. DETAILS: DMRs for March and April 2014 were not submitted. <input type="checkbox"/> S <input type="checkbox"/> M <input checked="" type="checkbox"/> U <input type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED <u>YES</u>)		
1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs.		<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE.		<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA
a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING		<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
b) NAME OF INDIVIDUAL PERFORMING SAMPLING		<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
c) ANALYTICAL METHODS AND TECHNIQUES.		<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
d) RESULTS OF ANALYSES AND CALIBRATIONS.		<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
e) DATES AND TIMES OF ANALYSES.		<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
f) NAME OF PERSON(S) PERFORMING ANALYSES.		<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE.		<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA.		<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
SECTION C - OPERATIONS AND MAINTENANCE		
TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. DETAILS: <input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED <u>NO</u>)		
1. TREATMENT UNITS PROPERLY OPERATED.		<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA
2. TREATMENT UNITS PROPERLY MAINTAINED.		<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED .		<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.		<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA
5. ALL NEEDED TREATMENT UNITS IN SERVICE		<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED.		<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED.		<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE.		<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED.		<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED.		<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA

RIO ALGOM MINING LLC/AMBROSIA LAKE MINE	PERMIT NO. NM0020532
SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)	
9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
SECTION D - SELF-MONITORING	
PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. DETAILS:	<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED <u>NO</u>).
1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
6. SAMPLE COLLECTION PROCEDURES ADEQUATE	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
a) SAMPLES REFRIGERATED DURING COMPOSITING.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
b) PROPER PRESERVATION TECHNIQUES USED.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT?	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
SECTION E - FLOW MEASUREMENT	
PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. DETAILS:	<input type="checkbox"/> S <input type="checkbox"/> M <input checked="" type="checkbox"/> U <input type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED <u>YES</u>)
1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. TYPE OF DEVICE <u>12-inch Parshall flume</u>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
4. CALIBRATION FREQUENCY ADEQUATE. RECORDS MAINTAINED OF CALIBRATION PROCEDURES. CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE.	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA
5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
6. HEAD MEASURED AT PROPER LOCATION.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
SECTION F – LABORATORY	
PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. DETAILS:	<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED <u>NO</u>)
1. EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA

RIO ALGOM MINING LLC/AMBROSIA LAKE MINE	PERMIT NO.: NM0020532
SECTION F - LABORATORY (CONT'D)	
2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT.	<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA
4. QUALITY CONTROL PROCEDURES ADEQUATE.	<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA
5. DUPLICATE SAMPLES ARE ANALYZED. 100 % OF THE TIME.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
6. SPIKED SAMPLES ARE ANALYZED. % OF THE TIME.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
7. COMMERCIAL LABORATORY USED.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
LAB NAME	
LAB ADDRESS	
PARAMETERS PERFORMED	

SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS. <input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED NO.).							
OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER
001	NO FLOW	NO FLOW	NO FLOW	NO FLOW	NO FLOW	NO FLOW	
RECEIVING WATER OBSERVATIONS NO FLOW AT THE TIME OF THIS INSPECTION.							

SECTION H - SLUDGE DISPOSAL			
SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. DETAILS:		<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED NO.).	
1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY.		<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA	
2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503.		<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA	
3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)			
SECTION I - SAMPLING INSPECTION PROCEDURES (FURTHER EXPLANATION ATTACHED NO.).			
1. SAMPLES OBTAINED THIS INSPECTION.		<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA	
2. TYPE OF SAMPLE OBTAINED			
GRAB	COMPOSITE SAMPLE	METHOD	FREQUENCY
3. SAMPLES PRESERVED.		<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
4. FLOW PROPORTIONED SAMPLES OBTAINED.		<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE.		<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE.		<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
7. SAMPLE SPLIT WITH PERMITTEE.		<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED.		<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT.		<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	

Rio Algom Mining Company, LLC; Ambrosia Lake Mine
NPDES Permit No. NM0020532
Compliance Evaluation Inspection
June 4, 2014

Further Explanations

Introduction

On June 4, 2014, Sarah Holcomb, accompanied by Bruce Yurdin and Daniel Valenta, of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) conducted a Compliance Evaluation Inspection (CEI) at the Ambrosia Lake Mine, operated by Rio Algom Mining, LLC, near Grants, McKinley County, New Mexico. The Ambrosia Lake Mine is classified as a major industrial discharger under the federal Clean Water Act, Section 402, of the National Pollutant Discharge Elimination System (NPDES) permit program. It is assigned NPDES permit number NM0020532. The mine is an inactive uranium mine that is undergoing reclamation. The facility is authorized to discharge stormwater and mine drainage runoff, which discharges into the Arroyo del Puerto in Segment 20.6.4.97 NMAC (*State of New Mexico Standards for Interstate and Intrastate Surface Waters*) of the Rio Grande Basin. Designated uses of segment 20.6.4.97 NMAC are livestock watering, wildlife habitat, limited aquatic life and secondary contact.

The NMED performs a certain number of CEIs each year for the U.S. Environmental Protection Agency (USEPA), Region VI. The purpose of this inspection is to provide the USEPA with information to evaluate the Permittee's compliance with the NPDES permit. This inspection report is based on information provided by the Permittee's representatives, observations made by the NMED inspector, and records and reports kept by the Permittee and/or NMED.

The Ambrosia Lake Mine began uranium mining operations in the 1950s under Kerr-McGee. The facility transferred hands from Kerr-McGee to Quivira Mining Company in 1989, and then was purchased by Billiton in 2001. Billiton became BHP Billiton in 2001. Rio Algom Mining, LLC is a subsidiary of BHP Billiton.

Upon arrival at approximately 0945 hours on the day of this inspection, the inspector made introductions, explained the purpose of the inspection and presented her credentials to Mr. Doug Murray, Deputy Site Manager, BHP Billiton. The inspectors and Mr. Murray traveled to the facility, met Mr. Harold Slim, Senior Environmental Technician, and toured the site. At the end of the tour, the inspectors and the permittee's representatives stopped at the onsite office to review maps. The inspectors conducted an exit interview to discuss preliminary findings. Mr. Murray and Mr. Slim were both present, and the meeting concluded at approximately 1305 hours.

Treatment Scheme

At the time of this inspection, the permittee's representative informed the inspectors that BHP Billiton had made the decision to completely close and remediate the mine. They expect this process to take approximately five years.

The mine itself encompasses approximately 370 acres, and during its active phase contained tailings ponds, the mill and various mining buildings, including an office, a maintenance shop and multiple tanks of chemicals and fuel. The on-site mill also served numerous other uranium mining operations in the area, including Church Rock Mine and Homestake Mine. Operations at Ambrosia Lake ceased in 2003. The mine had been maintained in anticipation of start-up, if uranium prices proved sustainable.

The mining process prior to 2003 consisted of an in-situ leaching process, where water and oxygen were pumped into the ore bearing soil layers to encourage the dissolution of the uranium ore into the water. The mineral-laden water was then pumped back to the surface. The uranium was recovered from the water via an ion-exchange process, after which the uranium was dried and processed to produce yellowcake, and then shipped offsite. Liquid waste from the process was disposed into regulated deep waste disposal wells. There is no groundwater remediation occurring at the site, according to the permittee's representative, because the Nuclear Regulatory Commission (NRC), who has jurisdiction over groundwater in this area, approved alternate concentration limits at this site in 2006.

The mill equipment was demolished in 2003 and disposed in Pond #1. (Please see map attached as Appendix A to this report.) The structures that currently remain on site are the machine shop, water treatment facility, ion exchange building and the site offices.

None of the tailings facilities currently contain water. There is one tailings cell (Pond #1) that has been completely capped. The second tailings cell (Pond #2) will contain the remediated soil from the old tailings ponds on the eastern side of Highway 509 (Section 4). The permittee's representative indicated that approximately one foot of contaminated soil (40,000 tons) removed from those ponds would be buried and capped at Pond #2.

Further Explanations

Note: The sections are arranged according to the format of the enclosed EPA Inspection Checklist (Form 3560-3), rather than being ranked in order of importance.

Section A – Permit Verification Evaluation – Overall Rating of “Unsatisfactory”

The cover page of the permit states:

Outfall 001: Latitude 35° 22' 35" North, Longitude 107° 48' 21" West

Findings for Permit Verification:

Please refer to the map in Appendix A of this report. The outfall for this facility is located approximately one mile downstream of any mine runoff locations. The outfall location does not appear to be representative of the activity at this facility and, additionally, is located within the receiving waterbody.

Additionally, there are a number of old tailings ponds in Section 4, on the eastern side of NM-509 that do not appear to be covered under this permit. The ponds have not been fully remediated, as the permittee's representative indicated that soil remediation in that area would take place during this next phase of the remediation project. The inspectors looked for culverts or other signs of hydrological connection under NM-509 that would lead to Outfall 001, but were unable to locate any evidence that stormwater runoff from the Section 4 ponds would connect to the outfall. The permittee's representative indicated that the site was bermed, however, there was no information what size storm the berms were designed to accommodate. A discharge, if one occurred, from the Section 4 pond area does not appear to be authorized under this permit and would need designation as a separate outfall.

Section B – Recordkeeping and Reporting Evaluation – Overall rating of “Unsatisfactory”

The permit states in Part I.C:

Monitoring results shall be reported in accordance with the provisions of Part III.D.4 of the permit. Monitoring results obtained during the previous month shall be summarized and reported on a Discharge Monitoring Report form postmarked no later than the 15th day of the month following the completed reporting period.

The permit states in Part III.D.4:

Monitoring results must be reported to EPA on either the electronic or paper Discharge Monitoring Report (DMR) approved formats. Monitoring results can be submitted electronically in lieu of the paper DMR form. To submit electronically, access the NetDMR website at www.epa.gov/netdmr and contact the R6NetDMR.epa.gov inbox for further instructions. Until you are approved for NetDMR, you must report on the Discharge Monitoring Report (DMR) Form No. 3320-1 in accordance with the “General Instructions” provided on the form. No additional copies are needed if reporting electronically, however, when submitting paper form 3320-1, the permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D to the EPA at the address below. Duplicate copies of paper DMRs and all other reports shall be submitted to the appropriate State agency (ies) at the following address (es):

EPA:

Compliance Assurance and Enforcement Division
Water Enforcement Branch (6EN-W)
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

NMED:

Program Manager
Surface Water Quality Bureau
New Mexico Environment Department
P.O. Box 5469
1190 Saint Frances Drive

Findings for Recordkeeping and Reporting:

From a review of the files prior to the inspection, the inspector observed that DMRs had not been received for this facility for a number of months. The facility had been utilizing NetDMR until January of 2013. Paper DMRs had been submitted since that date. Chuck Wentz was the prior signatory authority on the DMRs, but the DMRs submitted since January 2013 had been signed by Linda Broughton, President of Rio Algom Mining LLC, who has since retired.

Paper DMRs were documented as received in the NMED files through February 2014. However, DMRs were missing for March 2014 and April 2014.

The permittee's representative indicated that organizational changes were occurring within BHP Billiton and that the paperwork had not been completed as a result. The permittee's representative indicated that BHP Billiton was aware of the DMR reporting issues, including designation of a new signatory authority, and is working to correct those issues.

Section E – Flow Measurement Verification – Overall Rating of “Unsatisfactory”

The permit states in Part III.C.6:

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.

Findings for Flow Measurement:

During the prior facility inspection, conducted by USEPA on March 21, 2012, the EPA inspector noted that the onsite battery powered Stevens Recorder (a float/mechanical flow meter with a paper strip to record flow data) had not been calibrated. The inspector noted that at the time there had not been any measurable flow in the past year, however, the suggestion was made at that time that the meter should be calibrated using a simulated flow.

This finding is unchanged at the time of this inspection. The same flow monitoring equipment was present at the facility site, but there was no effort made since the previous inspection to calibrate the flow meter to ensure an accurate flow.

**NMED/SWQB
Official Photograph Log**

Photo #1:

Photographer:	Daniel Valenta	Date	6-4-2014	Time	1208 hours
Location:	Rio Algom/Ambrosia Lake Mine				
Subject:	View upstream of the flow recording equipment at Outfall 001. The outfall is located in Section 5, an area of BHP Billiton's holdings that was never intended to be mined. The outfall is located approximately one mile downstream of the drainage.				



**NMED/SWQB
Official Photograph Log**

Photo #2:

Photographer:	Daniel Valenta	Date	6-4-2014	Time	1210 hours
Location:	Rio Algom/Ambrosia Lake Mine				
Subject:	Stevens Recorder for flow measurement at Outfall 001. This equipment had not been calibrated.				



**NMED/SWQB
Official Photograph Log**

Photo #3:

Photographer:	Daniel Valenta	Date	6-4-2014	Time	1244 hours
Location:	Rio Algom/Ambrosia Lake Mine				
Subject:	Map of old Section 4 tailings ponds on the east side of Highway 509.				



Appendix A



Rio Algom Mining LLC

July 9, 2014

CERTIFIED MAIL

Ms. Gladys Gooden-Jackson
USEPA, Region VI
Enforcement Branch (6EN-WM)
1445 Ross Avenue
Dallas, Texas 75202-2733

Mr. Bruce Yurdin
New Mexico Environment Department
Surface Water Quality Bureau
Point Source Regulation Section
P.O. Box 5469
Sante Fe, New Mexico 87502

**Re: Response to June 4, 2014 NPDES Compliance Evaluation Inspection Report,
Permit No. NM0020532; Ambrosia Lake Facility, Rio Algom Mining LLC**

Dear Ms. Gooden-Jackson and Mr. Yurdin:

Thank you for providing the referenced inspection report for the Ambrosia Lake facility. Rio Algom Mining LLC (RAML) would like to provide you with an update on our monitoring and reporting program for Permit No. NM0020532, which authorizes the discharge of mine drainage water and stormwater runoff from the facility. Based on your inspection report, we understand that you are concerned about several issues, including the outfall location, the submittal of Discharge Monitoring Reports (DMRs), and calibration of the flow measurement equipment at the outfall.

Currently RAML does not discharge mine drainage water from the facility. In addition, there have been no stormwater discharges from the outfall in several years. We are in the process of preparing the documentation needed to submit a Notice of Intent (NOI) to comply with the Multi-Sector General Permit (MSGP) for stormwater discharges from industrial facilities. We expect to submit a NOI shortly after the Environmental Protection Agency adopts a new MSGP. Once we have been granted coverage under the MSGP, we intend to file for termination of Permit No. NM0020532. We believe that this approach will address concerns regarding the outfall location.

RAML submitted DMRs for March through June 2014 on July 2, 2014. We have initiated the process of filing DMRs electronically. In addition, we have undergone a recent

management change and provided additional staff support that we believe will enable us to meet our future reporting requirements in a timely manner.

Finally, our field team performed maintenance and initial calibration of the flow measurement equipment at the outfall on July 2, 2014. We have scheduled additional work and further calibration of the Parshall flume and Stevens Recorder to occur in the next several weeks.

Please let us know if you have any questions or require further clarification. You may contact me at (520) 208-1014 or Theresa Ballaine at (209)736-4803 or Theresa.Ballaine@BHPBilliton.com.

Sincerely,

A handwritten signature in black ink that reads "Anthony Baus". The signature is written in a cursive, flowing style.

Anthony Baus
Site Manager